

18/532866

DT01 Rec'd PCT/PTC 28 APR 2005

Translation of the pertinent portions of a International Preliminary Examination Report, mailed 02/28/2005

2. This report contains a total of nine pages, including this cover page. Copies of cited materials are also enclosed.

3. This report contains information regarding the following items:

- I Basis of the Report
- IV Lack of Unity of the Invention
- V Reasoned Determination under Rule 66.2 a)ii)

I Basis of the Report

Specification, pages

1. Regarding the components of the international application:

2 to 19	published version
1	received 12/04/04 with letter of 12/01/04

Claims, no.

6(part), 7-16	published version
1-5, 6(part)	received 12/04/04 with letter of 12/01/04
17-33	

Drawings, sheets

1/4 - 4/4	published version
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4. Because of changes claims 34, 35 are cancelled.

5. This report has been prepared without taking into account (some of the) changes, since in the opinion of the Office they go beyond the original disclosure for the reasons stated

see the attached sheet

IV Lack of Unity of the Invention

1. Upon a request for restricting the claims or paying additional fees, Applicant has

X paid additional fees

3. The Office is of the opinion that the requirement for unity of the invention in accordance with Rules 13.1, 13.2 and 13.3

X has not been met for the following reasons:

see the attached sheet

4. Therefore an international preliminary examination was performed for

X the portions relating to claims 1, 2, 6 to 8, 9 to 11, 13 to 29

V Reasoned Determination under Article 35(2)

1. Determination

Novelty	Yes: Claims 1,2,6-8,9-11,13-29 No:
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Inventive Activities	Yes: Claims 1,2,6-8,9-11,13-29 No:
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Commercial Applicability	Yes: Claims 1,2,6-8,9-11,13-29 No:
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2. Documents and Explanations:

see the attached sheet

ATTACHED SHEET

Re. Item I

re.: Item 1.5:

Changes:

The changes filed with the letter of 12/01/2004 add matters which, in contradiction of Article 34(2)(b) PCT, go beyond the disclosure of the international application at the time of filing.

These are the following changes:

Contrary to the original disclosure in claim 28 and the specification on page 7, lines 23 to 27, Applicant has claimed the generalizing term "soldered connection" in present amended claim 1.

However, the originally filed application documents were exclusively limited to **hard soldering in a vacuum**.

Re. Item V

This Office has determined that the international application contains several inventions, which are not connected by a single common inventive idea (Rule 13.1 PCT), namely:

I. Claims 1, 2 and 6 to 8:

Application of a profiled body with corrosion protection

II. Claims 3 to 5:

Welding method

III. Claims 9 to 11 and 13 to 29:

Structural depth of a profiled body

IV. Claim 12:

Arrangement of two profiled bodies

V. Claims 30 to 33:

Corrosion-proof edge

2. The reasons for this are the following:

Document D1, which represents the closest prior art, discloses a method for producing a rotating body with all characteristics in the preamble of the two independent claims 1 and 3, as well as a rotating body with all characteristics in the preambles of independent claims 9, 12 and 30. Therefore, **all characteristics common to all independent claims 1, 3, 9, 12 and 30** are already known from this document.

None of the present **five** invention has inevitably even one characteristic essential for the invention of any of the other invention, wherein respectively the following characteristics essential for the invention are claimed:

- see the first invention:

a material-to-material connection of profiled bodies and subsequent corrosion protection by an additional covering with a protective layer.

- see the second invention:

application by means of welding technologies on oppositely located groove walls.

- see the third invention:

structural depth of a profiled body.

- see the fourth invention:

two profiled bodies spaced apart in a cylinder wall.

- see the fifth invention:

groove edge made of a corrosion-proof material.

3. Contrary to the requirements of Rule 13.1 PCT, there is no connection here in the form of a technical interrelationship between the present **five** inventions, which would find expression in **all** independent claims by identical or corresponding special technical characteristics.

Re.: Item V

1. First Invention / Claims 1, 2 and 6 to 8:

1.1 Independent Claim 1:

1.1.1 Prior Art:

Document D1, mentioned in the specification, discloses a method for producing a rotating body with all the characteristics in the preamble of independent claim 1.

1.1.2 Object:

Making a method for producing a rotating body of a printing press available.

1.1.3 Attainment:

The specific combination of all characteristics in claim 1, in particular the application of a corrosion-proof protective layer, or the application of a covering made of a corrosion-proof material, in accordance with the characterizing portion of claim 1 is neither described nor suggested in the prior art, so that inventive activities within the meaning of Article 33 PCT exist.

1.2 Dependent Claims 2 and 6 to 8:

Dependent claims 2 and 6 to 8 define advantageous embodiments of a production method with all characteristics of independent claim 1.

2. Second Invention / Claims 9 to 11 and 13 to 29:

2.1 Novelty / Inventive Activities

2.1.1 Independent Claim 9:

2.1.1.1 Prior Art:

Document D1, mentioned in the specification, discloses a rotating body with all characteristics in the preamble of independent claim 9.

2.1.1.2 Object:

Making a rotating body of a printing press available.

2.1.1.3 Attainment:

The specific combination of all characteristics in claim 9, in particular the specific structural depth of the profiled body in relation to the cylinder groove in accordance with the characterizing portion of claim 9, is neither described nor suggested in the prior art, so that inventive activities within the meaning of Article 33 PCT exist.

2.1.2 Dependent Claims 10, 11 and 13 to 29:

Dependent claims 10, 11 and 13 to 29 define advantageous embodiments of a rotary body with all the characteristics of independent claim 9.

2.2 Clarity:

2.2.1 The application does not meet the requirements of Article 6 PCT, because independent claim 9 is not clear.

2.2.2 It ensues from the specification on page 1, first paragraph and third paragraph (statement of the object) that the following characteristic is important for the definition of the invention:

Rotating body of a printing press.

Since independent claim 9 does not contain this characteristic, it does not meet the requirement of Article 6 PCT, together with Rule 6.3 b) PCT, that each independent claim must contain all technical characteristics which are essential for the definition of the invention.

Specification

Method for the Production of a Rotating Member and Rotating
Member of a Printing Press

The invention relates to a method for producing a rotating body, and to a rotating body of a printing press in accordance with the preambles of claims 1, 3, 9, 12 or 30.

A device for fastening a dressing on a printing group cylinder is known from DE 196 11 642 C2, wherein a prefabricated strip is placed into a groove formed in the surface area of the cylinder and is welded together with it at joining surfaces facing each other in the circumferential direction of the cylinder, wherein the strip completely fills the groove, and bores conducting suction air and a slit-shaped bracing pit for holding a dressing arranged on an angled-off end are embodied in the strip.

The object of the invention is based on providing a method for producing a rotating body, and a rotating body of a printing press.

In accordance with the invention, this object is attained by means of the characteristics of claims 1, 3, 9, 12 or 30.

The advantages which can be gained by means of the invention consist in particular in that, for forming a bracing channel or a flow channel it is possible to cut a groove into the surface of the barrel of the base body, for example by means of milling, which is cost-effective for the production. Expensive deep hole drilling is not necessary.

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A profiled body covering and delimiting the bracing channel or the flow channel toward the shell face or the surface is introduced into the groove and is connected with the barrel

Claims

1. A method for producing a rotating body (01) of a printing press, having a barrel (02) with a profiled body (04), wherein the profiled body (04) is arranged in a groove (31) formed on a shell face (07) of the barrel (02) and is connected in a material-to-material manner with the barrel (02) along a joining surface, characterized in that the profiled body (04) is connected with the barrel (02) by means of electron beam welding, a soldered connection or gluing, wherein, following the introduction of the profiled body (04) into the barrel (02), a corrosion-proof protective layer (33) is applied to the shell face (07) of the barrel (02), or a covering (36) made of a corrosion-proof material is applied.

2. The method in accordance with claim 1, characterized in that the profiled body (04) is placed into the barrel (02) with a protrusion (a) toward the shell face (07).

3. A method for producing a rotating body (01) of a printing press, having a barrel (02) with a profiled body (04), wherein the profiled body (04) is arranged in a groove (31) formed on a shell face (07) of the barrel (02), characterized in that the profiled body (04) is formed on walls of the groove (31), which are located opposite each other in the circumferential direction of the barrel (02), by applying material in a method in accordance with welding

technology.

4. The method in accordance with claim 3, characterized in that for forming the profiled body (04) material is applied to the groove (31) by means of welding technology in such a way that the profiled body (04) forms a protrusion (a) on the shell face (07) of the barrel (02).

5. The method in accordance with claim 3, characterized in that a corrosion-proof protective layer (33) is applied to the shell face (07) of the barrel (02), or a covering (36) of a corrosion-proof material is applied.

6. The method in accordance with claim 1 or 3,

17. The rotating body (01) in accordance with claim 9 or 12, characterized in that the profiled body (04) is embodied as a molded piece.

18. The rotating body (01) in accordance with claim 9 or 12, characterized in that in the axial direction of the rotating body (01) the profiled body (04) is embodied in the shape of a strip.

19. The rotating body (01) in accordance with claim 9 or 12, characterized in that several profiled bodies (04) are provided in the axial direction of the rotating body (01).

20. The rotating body (01) in accordance with claim 9 or 12, characterized in that the profiled body consists of a corrosion-resistant material.

21. The rotating body (01) in accordance with claim 20, characterized in that the profiled body (04) is made of special steel.

22. The rotating body (01) in accordance with claim 9 or 12, characterized in that at least a part of one of the joining surfaces close to the shell face (07) between the barrel (02) and the profiled body (04) is embodied with smooth walls and without a curvature in a sectional view transversely to the axial direction of the rotating body

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(01).

23. The rotating body (01) in accordance with claim 9 or 12, characterized in that the groove (31) forms a bracing channel (06) with a round or a rectangular cross section.

24. The rotating body (01) in accordance with claim 9 or 12, characterized in that the barrel (02) has a cover (36)

forming the shell face (07) of the rotating body (01) and covering the surface (29) of a base body (28), wherein the grooves constituting a bracing channel (06) or a flow channel (37) are formed in the base body (28) and are each covered, at least partially, at the surface (29) of the base body (28) by a profiled body (04) arranged in the respective groove.

25. The rotating body (01) in accordance with claim 9 or 12, characterized in that the profiled body (04) is welded by means of electron beam welding.

26. The rotating body (01) in accordance with claim 9 or 12, characterized in that, instead of by welding, the profiled body (04) is connected by hard soldering in a vacuum with the base body (28).

27. The rotating body (01) in accordance with claim 9 or 12, characterized in that the barrel (02) consists of a material susceptible to corrosion.

28. The rotating body (01) in accordance with claim 9 or 12, characterized in that the shell face (07) of the barrel (02) is covered with a corrosion-proof protective layer (33).

29. The rotating body (01) in accordance with claim 28, characterized in that the protective layer (33) completely, or at least in part, covers a front face (34) of

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the profiled body (04) oriented toward the shell face (07).

30. A rotating body (01) of a printing press, having a barrel (02) with an opening (11) on its shell face (07), wherein the opening (11) at the shell face (07) has at least one edge (18, 19), characterized in that the at least one edge (18, 19) is made of a corrosion-resistant material.

31. The rotating body (01) in accordance with claim 30, characterized in that the opening (11) has two oppositely located edges (18, 29) made of a corrosion-resistant material.

32. The rotating body (01) in accordance with claim 30, characterized in that the edge (18, 19) has been formed on a profiled body (04) arranged in the barrel (02).

33. The rotating body (01) in accordance with claim 32, characterized in that the profiled body (04) has been inserted into a groove (31) cut into the shell face (07), or has been applied to a wall of a groove (31) cut into the shell face (07).